Application No. 10/506,888 Docket No.: 9896-000050/US/NP

Amendment dated August 16, 2007

Reply to Office Action of May 17, 2007

**AMENDMENTS TO THE DRAWINGS** 

The attached "Replacement Sheets" of drawings include changes to Figures 1-3.

The attached "Replacement Sheets," which include Figures 1-4, replace the original

sheets including Figures 1-4.

Attachment: Replacement Sheets

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**REMARKS** 

Claims 1-17 are now pending in the application. Claims 1 and 4-10 are currently

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amended. Claims 11-17 have been added as new. No new matter has been added, as

all amendments are supported by the specification, claims, and drawings as originally

filed. The Examiner is respectfully requested to reconsider and withdraw the rejections

in view of the amendments and remarks contained herein.

**DRAWINGS** 

The drawings stand objected to for certain informalities. Applicant has attached

revised drawings for the Examiner's approval. In the "Replacement Sheets" Applicant has

added the legend -- Prior Art-- to Figures 1-3. Therefore, reconsideration and withdrawal of

this objection are respectfully requested.

**SPECIFICATION** 

Applicant has amended the specification to correspond to the amended claims.

The abstract has been amended to contain fewer than 150 words.

REJECTION UNDER 35 U.S.C. § 102

Claims 1-10 stand rejected under 35 U.S.C. § 102(e) as being anticipated by

Stewart et al. (U.S. Pat. No. 7,155,133). This rejection is respectfully traversed.

Stewart is at best directed to a controller that includes a memory for storing the

data describing the temperature of the avalanche photodiode. The controller includes

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an analog to digital conversion circuit for receiving an analog signal corresponding to

the temperature of the avalanche photodiode. During the operation, the controller

senses the temperature, refers a lookup table to generate a control signal

corresponding to the temperate to APD power supply to control reverse-bias voltage of

the avalanche photodiode (see column 9, lines 1-19; and abstract of Stewart).

Applicants respectfully submit that the claims and the cited reference differ in the

following aspects.

First, in claim 1, the detection of the optical power differs from that of Stewart.

Stewart does no anticipate that the optical receiver module is standardized before

applied. After standardization, a voltage output circuit of optical power detection detects

an analog voltage of optical power which is then converted into digital data, and the

CPU obtains the optical power based on the digital data of the analog voltage and an

AD value stored during the standardization. Different optical receiver modules are

standardized respectively before applied, thus, the detection of the optical power would

not be affected by difference between different optical receiver modules, and the

detection is more accurate. In Stewart, on the other hand, the detection of the optical

power is based on a formula, without taking into account the difference between

different optical receiver modules, which is less accurate than the claimed invention.

Second, in claim 1, as the dark current of one optical receiver module may vary

at different temperatures, the dark current compensation at different temperatures is

carried out. Thus, the detection of the optical power in the claimed system is more

accurate at different temperatures because of the dark current compensation. Stewart

does not anticipate dark current compensation.

Third, Stewart does not anticipate that the A/D converter monitors a bias voltage

of the optical detector in real time. Thus, the bias voltage can be adjusted in time and

more accurately. Stewart at best discloses that the bias voltage is not monitored, and

the bias voltage can not be adjusted in time. As a result, the bias voltage may reach the

breakdown voltage easily and the APD may break down. Thus, the function of the A/D

converter and the adjustment of the bias voltage differs from that of Stewart.

Claim 4 of the present invention describes a method corresponding to the

module described in Claim 1, thus Stewart also fails to anticipate claim 4. In claim 4,

optical power is detected based on the standardization, and the dark current

compensation is carried out. Further, the bias voltage is monitored and adjusted in

time. While Stewart at best discloses the adjustment of the bias voltage based on the

temperature, and the optical power is detected based on a formula.

In view of the foregoing, Applicant respectfully submits that claims 1, 4, 11, and

14 define over the prior art. Likewise, because claims 2-3 depend from claim 1, claims

5-10 depend from claim 4, claims 12-13 depend from claim 11, and claim 15-17 depend

from claim 14, Applicant respectfully submits that claims 2-3, 5-10, 12-13, and 15-17

also define over the art cited by the Examiner. Thus Applicant respectfully requests

withdrawal of the rejection under 35 U.S.C. § 102(e).

CONCLUSION

In view of the above amendment, applicant believes the pending application is in

condition for allowance. It is believed that all of the stated grounds of rejection have

been properly traversed, accommodated, or rendered moot. Applicant therefore

respectfully requests that the Examiner reconsider and withdraw all presently

outstanding rejections. Thus, prompt and favorable consideration of this amendment is

respectfully requested. If the Examiner believes that personal communication will

expedite prosecution of this application, the Examiner is invited to telephone the

undersigned at (248) 641-1600.

Applicant believes no fee is due with this response. However, if a fee is due,

please charge our Deposit Account No. 08-0750, under Order No. 9896-000050/US/NP

from which the undersigned is authorized to draw.

Dated: August 21, 2007

Respectfully submitted,

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Attachments

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